BANKING RESERVES UNDER THE FEDERAL RESERVE ACT

For the purposes of this discussion the provisions of the new law relative to reserves may be grouped under three heads: those pertaining to the transfer of reserves from the present reserve-holding banks to the new Federal Reserve Banks; those providing for a diminution and a change in the composition of the reserves of member banks; and those pertaining to the reserves to be held by the Federal Reserve Banks against notes and deposits.

Under the first head it is required that for a period of twelve months after the Secretary of the Treasury shall have officially announced the establishment of a Federal Reserve Bank, *two-twelfths* of the required reserves of all country bank members and *three-fifteenths* of those of all reserve city bank members shall be kept on deposit in said Federal Reserve Bank, and that for each succeeding six months an additional twelfth in the former case and an additional fifteenth in the latter shall be so deposited until the total shall amount to *five-twelfths* in the case of country banks and to *six-fifteenths* in the case of reserve city banks. Member banks in central reserve cities must keep with the Federal Reserve Bank of their district at all times at least *seven-eighteenths* of their required reserves. One-half of the required deposit in each case may take the form of paper eligible for rediscount. It is to be inferred that the other half must be lawful money. After three years from the date of the establishment of the Federal Reserve Banks, balances in other banks may not be counted as reserves.

TABLE I

	Required Reserves	In Federal Reserve Banks			
		First 12 Months	First Succeeding 6 Months	Second Succeeding 6 Months	Thereafter
Country banks	$448,558,900.86	$ 74,759,816.80	$112,139,725.20	$149,519,633.60	$186,899,542.00
Reserve city banks	286,119,975.20	57,223,995.03	76,298,660.04	95,373,325.05	114,447,990.06
Central reserve city banks	284,560,111.68	110,662,265.63	110,662,265.63	110,662,265.63	110,662,265.63

On the assumption that all national banks and none others become members of the new organization, the amounts involved are as given in Table I, the statistics supplied by the report of the Comptroller of the Currency for February 10, 1914, constituting the basis of the calculation.

What the situation will be in the case of each Federal Reserve Bank it will, of course, be impossible to state until the number and exact boundaries of the districts are determined. The minimum amounts of lawful money that must be transferred to the Federal Reserve Banks for reserve purposes according to these statistics are indicated in Table II.

TABLE II

	At Beginning	12 Months After	18 Months After	2 Years After
From country banks	$37,379,908.40	$18,689,954.20	$18,689,954.20	$18,689,954.20
From reserve city banks	28,611,997.51	9,537,332.50	9,537,332.50	9,537,332.50
From central reserve city banks	55,331,132.81	....	....	....

At the date to which these statistics refer (January 13, 1914) the country banks had on hand in specie and legal tenders $284,-038,437.67, the reserve city banks, $268,682,167.44, and the central reserve banks, $429,198,815.45. Had the new Federal Reserve Banks been established at that date, therefore, the country banks would have been obliged to transfer to the new institutions for reserve purposes an amount of cash equal to 13.1 per cent of their cash holdings, the reserve city banks, an amount equal to 10.6 per cent of their cash holdings, and the central reserve banks an amount equal to 12.9 per cent of their cash holdings. It is highly probable, of course, that the country banks will shift a considerable portion of this burden to the reserve city banks and these in turn to the central reserve banks. That it will not be necessary for them so to do, however, is evident from Table III. This table indicates that on January 13, 1914, each group could have made the necessary transfers from its own cash holdings and have had enough remaining to meet the required payments on account of subscriptions to

the capital stock of the new institutions and to satisfy the requirements regarding reserves that must be kept in the form of cash in vaults.

TABLE III

	Country Banks	Reserve City Banks	Central Reserve City Banks
Total money holdings January 13, 1914	$284,038,437.67	$268,682,167.44	$429,198,815.45
One-half reserve deposit	37,611,997.51	28,611,997.51	55,331,132.81
Capital subscription	29,822,010.37	13,435,704.04	10,445,850.00
Reserve in vaults	186,899,542.00	114,447,990.06	94,853,370.54
Net balance	29,704,887.79	112,186,475.83	268,568,462.10

Indeed, if the amount of the required deposits for reserves in the Federal Reserve Banks had been made wholly in cash instead of one-half, the amount assumed in the above calculations, the country banks would have needed to draw upon their balances with the reserve city banks to the amount of only $7,907,109.72, the reserve city banks could have made the payment and had remaining $83,574,478.32, and the central reserve banks could have made the payment and had $213,237,329.29 remaining.

It is evident, therefore, that the transfers of lawful money required by the inauguration of the new system will not make demands upon the banks which they will be unable to meet. Will such transfers be likely in any way to embarrass them or their customers? Only in case the net balance remaining after these transfers have been made is inadequate to meet the cash demands made upon the banks by their regular customers, and then only during a possible interval between the date of making these transfers and the date of the opening of the Reserve Banks for business. After such opening, cash in all necessary amounts should be obtainable through rediscounts.

The probability that there will be any embarrassment even during this interval is very slight. In the first place, all the necessary preparations for opening, including the printing of notes and their delivery to the subtreasuries, can and should be made in advance of any calls for cash by the Federal Reserve Banks; and with present facilities for transportation the necessary transfers precedent to opening can be made in a day or two at the longest. It is also

highly probable that the surplus cash remaining in the banks after these transfers will be more than adequate to supply the need during this short interval. Of course conditions will vary among different banks and in some cases there will need to be a transfer of balances from correspondents and reserve agents, and perhaps a temporary curtailment of credits. It will usually be possible to avoid the latter, however, by sales of investment securities, loans from correspondents, or rediscounts with them.

More important than these temporary effects, however, are the readjustments of banking relations which will ultimately result and which will be permanent. After three years from the opening of the Federal Reserve Banks, all reserve balances of member banks must be withdrawn from present reserve agents; and, if the clearing system which the new organization is authorized to establish is put into operation, it is probable that a large portion of the exchange balances now kept with correspondents will be transferred to the Federal Reserve Banks. That is to say, existing reserve and some of the most important exchange relations between banks will be severed and new ones formed with the Federal Reserve Banks. Previous to the selection of the cities in which these banks are to be located and the settlement of the boundaries of the districts and the location of the branches, it will be impossible to forecast with any degree of certainty what effects upon our banking system these changes will produce. Probably the focal points will be shifted, though not greatly, if branches are established in all existing reserve cities. The cities in which the Federal Reserve Banks are located will, of course, become the primary focal points, and those in which branches are located, the secondary ones. Washington will become the clearing-center unless, as is possible, the Federal Reserve Board should decide to transfer it to New York or Chicago.

The primary focal points of the new system, that is, the Federal Reserve Banks, will doubtless serve as cash reservoirs and cash distributing centers to a greater extent than the present reserve agents, since banks will not need to carry so much cash in their vaults as they do at the present time and the means of obtaining cash as needed will be greatly facilitated. If the facilities for transacting business with the Federal Reserve Banks are properly mul-

tiplied through the extension of branches and agencies, the practice of hoarding, so widespread at the present time, ought to be entirely discontinued in time, and our banks ought to become accustomed to rely upon the Federal Reserve Banks for their daily supplies of cash, as European banks do upon their central institutions. The new law still requires the hoarding of a certain amount of cash, but we may hope that the acquisition of the habit of relying upon the Federal Reserve Banks for daily supplies may in time demonstrate the absurdity of hoarding even for reserve purposes and ultimately result in the amendment of this feature of the law.

How the transfer of reserve and exchange balances to the Federal Reserve Banks will affect the kinds and methods of business and the profits of the banks which now hold these balances can be only conjectured at this date. It seems highly probable, indeed almost certain, that the call loan business on the New York Stock Exchange will be considerably diminished. The reserve funds now devoted almost exclusively to that business will be diverted to other uses both in and outside of New York City, and commercial paper will compete with these loans on the open market on a different basis and much more efficiently than ever before. It seems not improbable that these two forms of investment may change places in the regard of bankers and in time approximate the relations they now occupy on the London market. In other words, the stockbroker will no longer have the advantage over all other classes of borrowers of being able to furnish the most easily marketable security. On the contrary, he will be at a disadvantage in comparison with other merchants and manufacturers in that his paper will not be rediscountable at the Federal Reserve Banks.

There is no good reason for thinking that ample funds for the operation of the New York and other stock markets of the country will not be forthcoming under the new system, but such funds will probably be drawn from strictly investment rather than commercial sources to a greater extent than at present, and the rates charged on them will not be subject to such wide fluctuations and will ordinarily be higher than at present. As a consequence of these changes the proportion of speculative to other kinds of business ought to decline and security values ought to be more stable.

Throughout the entire country and especially in the reserve cities the demand for commercial paper should, and doubtless will, greatly increase, and the rate of discount should correspondingly fall. Such paper will everywhere constitute the chief element in the secondary reserves of all banks, non-member as well as member, and such reserves will form a larger proportion of the total than at the present time. The result will doubtless be a differentiation of commercial and investment paper to a degree unknown at the present day in this country. When the ordinary business man is able to market commercial paper at a rate considerably lower than investment paper, he will be supplied with a motive for distinguishing between the two which he does not now possess, and the banks will aid and encourage him in so doing because they must make the distinction whenever they rediscount with the Federal Reserve Banks.

Such differentiation ought to have far-reaching consequences. If it is made general and insisted on in the practice of all banking institutions, one of the most potent causes of commercial crises will be removed. In my judgment, such a cause is to be recognized in the present widespread practice, especially among country banks, of establishing lines of credit on the basis of a customer's total wealth rather than of the magnitude of his commercial transactions, and of loaning to him on his personal note with the expectation and frequently with the implied promise of an indefinite number of renewals. In times of expansion this practice almost necessarily results in inflation of credit and ultimately in forced liquidation which, if widespread and sufficiently great in magnitude, almost inevitably produces a crisis.

Next to the transfer of reserve funds from present reserve agents to the Federal Reserve Banks, the most important feature of the new reserve system is the diminution, in proportion to deposits, of the reserves required to be maintained by member banks, and the change in the composition of these reserves. In the case of country banks the diminution of the reserves against demand deposits is from 15 per cent to 12 per cent, in that of reserve city banks from 25 per cent to 15 per cent, and in that of central reserve city banks

from 25 per cent to 18 per cent. In the case of time deposits the percentage is to be reduced to 5 for all banks. After three years, only cash in vaults and balances with Federal Reserve Banks may be counted as reserves and the distribution between the two must be as follows: in country banks, at least 4/12 cash in vaults and 5/12 balances and the remaining 3/12 distributed between the two, as the bank pleases; reserve city banks, at least 6/15 cash in vaults, 6/15 balances, and the remaining 3/15 distributed between the two as the bank pleases; and in central reserve city banks, at least 6/18 cash in vaults, 7/18 balances, and the remaining 5/18 distributed between the two as the bank pleases.

Under the new system it will be possible for banks with safety to approach the minimum set by law much more closely than they can at the present time, for the reason that rediscountable commercial paper will then be convertible into cash on short notice and authority to suspend the reserve requirements will rest with the Federal Reserve Board. The important question for consideration in this connection is: Will the banks be likely to expand to the limits set by these lowered reserve requirements, and, if they do, what will be the result?

An important factor in the determination of the extent to which the banks will avail themselves of this possible power of expansion will be the policy pursued by the Federal Reserve Board in its definition of the paper which may be admitted to discount under the terms of the new law, and its policy in relation to the issue of Federal Reserve notes and the control of rediscounts by the Federal Reserve Banks.

Sec. 13 of the act leaves considerable discretion to the Federal Reserve Board in the determination of the paper admissible to rediscount. The second paragraph reads as follows:

> Upon the indorsement of any of its member banks, with a waiver of demand, notice and protest by such bank, any Federal Reserve Bank may discount notes, drafts, and bills of exchange arising out of actual commercial transactions; that is, notes, drafts, and bills of exchange issued or drawn for agricultural, industrial, or commercial purposes, or the proceeds of which have been used, or are to be used, for such purposes, the Federal Reserve Board to have the right to determine or define the character of the paper thus eligible for discount, within the meaning of this act. Nothing in this act contained shall

be construed to prohibit such notes, drafts, and bills of exchange, secured by staple agricultural products, or other goods, wares, or merchandise from being eligible for such discount; but such definition shall not include notes, drafts, or bills covering merely investments or issued or drawn for the purpose of carrying or trading in stocks, bonds, or other investment securities, except bonds and notes of the government of the United States. Notes, drafts, and bills admitted to discount under the terms of this paragraph must have a maturity at the time of discount of not more than ninety days: *Provided,* That notes, drafts, and bills drawn or issued for agricultural purposes or based on live stock and having a maturity not exceeding six months may be discounted in an amount to be limited to a percentage of the capital of the Federal Reserve Bank, to be ascertained and fixed by the Federal Reserve Board.

In the interpretation of the phrases "actual commercial transactions," "issued or drawn for agricultural, industrial, or commercial purposes," "to be used for such purposes," and "merely investments," considerable latitude is possible. The difference between a construction of these terms based upon an accurate knowledge of, and a strict regard for, the fundamental processes of our economic life and sound principles of banking and one based strictly on legal conceptions, court decisions, the derivation of words, etc., may be very great. The difference between a strict and a liberal interpretation on any basis may also be great. If these terms are interpreted in such a manner as to confine rediscounts to the paper which represents the growing and harvesting of the crops and their movement from producers to consumers, the movement of raw material and labor through the various processes required for their transformation into manufactures ready for consumption, and the distribution of these manufactures to final consumers, the expansion of the banks will be automatically regulated. In other words they will expand to the extent that is necessary for the proper conduct of these fundamental processes and no farther. But if paper is allowed to be accepted for rediscount which represents equipment, the indefinite holding of crops or manufactured goods for improved market conditions, irrigation, drainage, and other similar projects—paper which might easily be made to conform technically to the requirements of Sec. 13—the expansion of the banks will depend upon such artificial stimuli and restraints as may be supplied by the good or bad judgment of their officers or by the action of the

Federal Reserve Board in the exercise of its power over note issues and discount rates.

By issuing notes freely and permitting a rate of discount below that of the markets in which the Federal Reserve Banks are located, the Board may stimulate expansion, and by the opposite policy it may curb any movement in that direction. The kind of judgment exercised by the officers of the member banks will depend in no small degree upon the extent of their ability to distinguish between commercial and investment paper and upon their appreciation of the importance of this distinction. To create and diffuse this ability and appreciation will require a campaign of education begun at once and strenuously pursued for a considerable period of time.

At the present time most officers and the general public are unaware that such a distinction in reality exists. Their experience and training has tended to obscure rather than to reveal it. Bank officers have been accustomed to grant lines of credit to their customers on the basis of their total worth rather than of the volume of their commercial transactions, and the customers have freely used the funds advanced them for all their needs, investment as well as commercial. So long as they have kept within the lines granted them, they have expected to have their notes renewed indefinitely and have been encouraged in this expectation by the practice of the bankers.

The current use of the term "commercial paper" is also misleading. To most people it means paper which is handled by a broker as distinguished from that which comes to the bank directly from the makers. It may or may not be commercial paper in the proper sense of that term.

To change these ideas and practices will require conscious effort, the exercise of financial pressure, and time. The Federal Reserve Board will need to make clear at the outset the distinction between commercial and investment paper and to hold the Federal Reserve Banks strictly to its observance in their rediscounts and open market operations. By these means the member banks will be forced to give attention to it and to bring it to the attention of their customers. By a slight difference in the rates charged on commercial and investment paper, business men can readily be induced to

separate the one from the other, but they will need instruction regarding how to do it, and the source of such instruction, at the beginning at any rate, must be the Federal Reserve Board.

At the very beginning, of course, it will be impossible to remove all uncertainty regarding the character of the paper that is offered for rediscount. The greater part of the assets of most of the member banks consists of promissory notes which do not bear upon their faces any evidence regarding the nature of the transaction in which they originated, and the bankers who own them will not be able to furnish much evidence on this point. They will be willing and able to guarantee the payment of the paper at maturity and the Federal Reserve Banks will have to be content with such guaranties. But as soon as the new machinery is in full operation and there has been time for the member banks to readjust their methods and practices, there should be strict insistence upon the presentation of evidence that the paper offered for rediscount is actually commercial in character, and in the reports which the member banks are required to make to the Federal Reserve Board a classification of their assets into commercial and investment paper should be insisted upon, and the examiners should be instructed to give special attention to this classification and to aid the member banks in drawing the line accurately.

Regarding the adequacy of these checks against overexpansion, experience alone can furnish the final test. The power granted the Federal Reserve Board seems to be sufficiently great. If it errs in applying the commercial paper brake, it still may limit note issues and force up the rates of discount. Unless it fails correctly to read the signs which indicate overexpansion and permits unsound conditions to develop to too great an extent, it ought to be able to control the situation without difficulty.

Sec. 16 of the new law provides among other things that "every Federal Reserve Bank shall maintain reserves in gold or lawful money of not less than thirty-five per centum against its deposits and reserves in gold of not less than forty per centum against its Federal Reserve notes in actual circulation, and not offset by gold or lawful money deposited with the Federal Reserve agent." The

gold reserve against notes may be reduced to any amount below 40 per cent, however, on condition of the payment of a graduated tax which must be added to the rate of discount. As regards note issues, therefore, the law does not establish an impassable limit in the form of a rigid minimum reserve, but instead it makes a progressive increase in the rate of discount *compulsory* whenever the gold reserve falls below 40 per cent, and fixes the amount of such increase. When such reserves are above 40 per cent an increase in the rate is optional with the Federal Reserve Banks and ultimately with the Federal Reserve Board. As regards deposits, on the other hand, the maintenance of a minimum reserve of 35 per cent is a rigid requirement, the violation of which would render the officers of a Federal Reserve Bank subject to removal by the Federal Reserve Board.

A sharp line is thus drawn between checking accounts and note issues as a basis of expansion, and properly, because credit balances on the former may be counted by member banks as reserves, while notes may not be so counted. For example, the crediting on a checking account with a Federal Reserve Bank of the proceeds of the rediscount of a thousand dollar note would give to a country bank the right to loan $8,333$\frac{1}{3}$, to a reserve city bank the right to loan $6,666$\frac{2}{3}$, and to a central reserve city bank the right to loan $5,555$\frac{5}{9}$, while the exchange of that same note for Federal Reserve notes would not in any respect directly increase the loaning power of these banks. It should also be noted in this connection that a rise in the rate of discount in any degree will more easily check note issues than an increase in balances on checking accounts, since in the former case whenever the Federal Reserve Bank rate exceeds the market rate, the banks would suffer a loss, while in the latter case that result would not necessarily follow, indeed would not be likely to follow unless the rise in the bank rate were very great.

At the present time it is impossible to estimate the amount of expansion which these reserve requirements would permit, since we cannot with even an approximation of accuracy estimate the amount of lawful money that will find its way into the vaults of the Federal Reserve Banks. We do not know how much will be

paid in by member banks on account of capital stock and reserves or how much will be deposited on account by the federal Treasury.

However, some indication of what may reasonably be expected is supplied by the figures contained in the reports of the national banks to the Comptroller made on January 13, 1914, and by the amount on hand in the general fund of the Treasury about that time. On that date the national banks of the country had in their vaults $981,919,420.56 in lawful money. Had the Federal Reserve act been in force at that time, these banks would have been obliged to carry in their vaults for reserve purposes $396,200,902.60. The difference between these two figures, or $585,718,517.96, represents the amounts available for the supply of the customers of the banks, with money in denominations below five dollars and with the means of paying foreign balances, and for deposit in the Federal Reserve Banks. Assuming that about half of it would have been needed for the use of customers, about $300,000,000 of lawful money would have been left for deposit in the Federal Reserve Banks. Add to this $100,000,000, the amount which the Secretary of the Treasury might reasonably be expected to transfer from the general fund which amounted to $286,129,330.00 on September 16, 1913, and the grand total is $400,000,000. This amount of lawful money would enable the Federal Reserve Banks to carry as a maximum approximately $1,143,000,000 of deposits, a part of which, probably the larger part, could be used by member banks as reserves.

A comparison of this total with the national bank balances held by the reserve and central reserve city banks on January 13, 1914—$612,894,753.90—roughly indicates the amount of expansion rendered possible by the new law.

On the date to which the above figures refer the amount of gold coin and gold certificates in the vaults of the banks and in the general fund of the Treasury was sufficient to have made possible the payment of the entire $400,000,000 to the Federal Reserve Banks in these forms. It would, therefore, have been possible for these banks to have used this entire fund as a basis for note issues had that been desirable, or to have distributed it in any desired proportion between the reserve for notes and the reserve for deposits.

How much room there may be for legitimate expansion cannot, of course, be determined. The important points to observe are that a fair margin for expansion will undoubtedly be created by the inauguration of the new system and that the power to check over-expansion is lodged by the new law in the hands of the Federal Reserve Board and the directorates of the Federal Reserve Banks. It is not likely that the latter will be tempted to overexpansion by the desire to earn large dividends and hence there is no reason why they should permit their reserves to fall as low as 35 per cent, if for any reason the interests of the country demand that they should be higher. Indeed they can at any time check a tendency toward overexpansion by raising the rate of discount and, if that is not sufficient, by limiting the amount of rediscounts to banks inclined to overexpand. They may even go to the extent of temporarily refusing rediscounts entirely. If the Federal Reserve Banks do not voluntarily apply the brakes when and where they are needed, the Federal Reserve Board may compel them so to do.

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